



Sex, power and orthopaedics

Saadia Farooq¹ • Sertaz-Niel Kang² • Manoj Ramachandran²

¹ Barts and The London School of Medicine and Dentistry, Turner Street, Whitechapel, London

² Department of Trauma and Orthopaedics, Barts and The London NHSTrust, Whitechapel Road, Whitechapel, London E1 1BB, UK

Correspondence to: Manoj Ramachandran. E-mail: manoj.ramachandran@bartsandthelondon.nhs.uk

DECLARATIONS

Competing interests

None declared

Funding

None

Ethical approval

Not applicable

Guarantor

MR

Contributorship

All authors contributed equally

Acknowledgements

None

The year 2008 blew in a strong wind of change; the election of Barack Obama, the first African-American president, was one fine example of this. Yet the race towards gender parity in the workforce is slowing in pace according to a recent report entitled *Sex and Power* by the Equality and Human Rights Commission.¹ This problem affects both public and private sectors and has been of particular relevance in the traditionally male-dominated specialty of orthopaedic surgery. The British Orthopaedic Association bucked this trend in 2008, celebrating its 90th anniversary by appointing its first female president, Clare Marx, who will undoubtedly be an inspiration to women and men alike.

Another pioneering female surgeon was Maud Forrester-Brown. Born in 1885, Miss Forrester-Brown studied medicine at the London School of Medicine (Royal Free) from 1907, graduating in 1912 with honours in pathology and forensic medicine. In 1923, the Royal Society of Medicine awarded her the William Gissane Research Scholarship, which she used to visit orthopaedic clinics in the USA and Europe. On her travels, using her command of five languages, she was able to translate several articles written by her foreign peers into English. After training in hospitals across England, she was invited to work with Sir Harold Stiles in Edinburgh as an orthopaedic resident and together they published an orthopaedic textbook. She was mentored by some of the great pioneers of British orthopaedics, including Sir Robert Jones and GR Girdlestone. The British Association of Orthopaedics was formed in 1918 and Miss Forrester-Brown was admitted as a member three years later. She was appointed as the resident surgeon at The Bath and Wessex

Children's Orthopaedic Hospital in 1925, where later, as a consultant, she modelled the orthopaedic services on those of The Robert Jones and Agnes Hunt Hospital, a specialist orthopaedic hospital in Oswestry. She was renowned for her work on the diagnosis and treatment of skeletal deformities in childhood. She retired at the age of 65 years and to this day, she remains an inspiration to women in surgical specialties worldwide.²

Since Miss Forrester-Brown's time, the number of women entering medical school has changed dramatically. The proportion of female medical students remained between 20% and 25% until 1968, but then exceeded 50% in 1991. This steadily increased to 58% in 2001 and more recent work has shown that the proportion of female medical graduates is as high as 65%.^{3,4} Despite this increase, the percentage of women applying for orthopaedic training posts in the United Kingdom remains low at only 5% in 2005.⁵ In addition, the number of female orthopaedic consultants in the UK in 2005 was only 2.87%.⁶ Although the percentage of women entering medical school increased from 11.1% to 47.8% between 1970 and 2001, the percentage of women in orthopaedics only increased from 0.6% to 9% during that time period.⁷ This most likely reflected an increase in the proportion of women in medical school as opposed to a real increase in the number of women choosing orthopaedics. In addition, the percentage of women in orthopaedic training programmes is lower than the percentage of women in other surgical fields, despite it being the second largest surgical specialty.⁷ So, what factors are responsible for deterring women from applying for a career in orthopaedics?

As there is no current relevant literature, we carried out a survey of medical students at Barts and The London Medical School in London, England. The survey was based on a previously validated questionnaire on doctors' reasons for rejecting certain specialties.⁸ The questionnaire was e-mail-based, students were allowed to give as many reasons as applicable for rejecting orthopaedics as a career and the responses remained anonymous. Of 239 responses, 141 were from women. Overall, 79.3% of female medical students and 58.2% of male students stated they would not consider a career in orthopaedics. The reasons for this varied between male and female students. The main deterring factors among male students were concerns about securing a training post (41.3%) and a consultant job (32.6%). In comparison, the most common deterring factors among women were the physical aspects of the job (57.1%), plans for a family (53.7%), perceived gender bias (51.1%) and antisocial hours (46.9%).

Several interventions are necessary to address these issues. Encouraging women into the specialty at an early stage at medical school is one possible solution. Organizations such as WinS (Women in Surgery) in the UK and the Ruth Jackson Orthopaedic Society in the USA aim to do this.⁹ They provide women with an insight into surgical careers, removing misconceptions and stereotypes associated with surgical specialties. A lack of same-sex role models, particularly at more senior levels, can deter women from choosing a career in surgery.¹⁰ These organizations have female surgical members who are able to offer advice and support to other trainees. Inclusion of orthopaedics in the medical school curriculum is limited, so more emphasis could be placed on adequate representation of the specialty to attract student interest.⁷

Another factor that may encourage greater female interest is the introduction of the European

Working Time Directive, with junior doctors' working hours being lowered to 48 hours a week by August 2009. Although this could impact on training, it may allow doctors to balance their careers with a family life. In addition, as the lack of progress of women in other work sectors has demonstrated, legislation may be required to support more flexible working initiatives.

Although women are under-represented in orthopaedic surgery, there is great scope and an urgent need to change this. With the current global winds of change, there is no better time for women to smash through the reinforced concrete ceiling of orthopaedic surgery. To best serve our diverse patient mix, orthopaedics requires diversity in thought, with a concomitant diversity in personnel. These changes are most likely to propel the specialty into its next era.

References

- 1 See http://www.equalityhumanrights.com/en/publicationsandresources/Documents/Gender/Sex_and_Power_2008.pdf (last accessed 2 January 2009)
- 2 Kirkup J. Maud Forrester-Brown (1885–1970): Britain's first woman orthopaedic surgeon. *J Med Biog* 2008;**16**:197–204
- 3 See http://www.rcplondon.ac.uk/news/statements/briefing_womenmed.asp (last accessed 2 January 2009)
- 4 Moore A. Why aren't there more female surgeons in the UK? *Surgery* 2003;**21**:i–ii
- 5 McNally SA. Competition ratios for different specialties and the effect of gender and immigration status. *J R Soc Med* 2008;**101**:489–92
- 6 See <http://www.publications.parliament.uk/pa/cm200506/cmselect/cmhealth/1077/1077we15.htm> (last accessed 2 January 2009)
- 7 Blakemore LC, Hall JM, Biermann JS. Women in surgical residency training programs. *J Bone Joint Surg* 2003-A;**85**:2477–80
- 8 Lambert TW, Davidson JM, Evans J, *et al.* Doctors' reasons for rejecting initial choices of specialties as long-term careers. *Med Ed* 2003;**37**:312–18
- 9 See <http://www.medscape.com/viewarticle/538296> (last accessed 2 January 2009)
- 10 Maran AGD, Cudworth J, Doig MC, *et al.* Women in surgery in Scotland. A Working Party of the Royal College of Surgeons of Edinburgh. *J R Coll Surg Ed* 1993;**38**:279–84